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State of Utah

DEPARTMENT OF NATURAL RESOURCES

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Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

June 4, 2015

Wayne McCandless
Nielson Construction
P.O. Box 620
Huntington, Utah 84528

Subject: Second Review of Notice of Intention to Commence Large Mining Operations, Nielson Construction, Emma Park Limestone Pit, M/049/0093, Utah County, Utah

Dear Mr. McCandless:

The Division of Oil, Gas and Mining has reviewed the Notice of Intention to Commence Large Mining Operations (Notice0 for the Emma Park Limestone Pit, which was received on April 24, 2015. The attached comments need to be addressed before the Division can issue tentative approval.

Some of the comments from the previous review were not addressed or were not addressed completely. These comments are italicized, and please do not respond to them directly. **It is necessary that you review the follow up remarks and clarification before responding.** Please contact Leslie Heppler at 801-538-5257 if you have questions about these items.

The Division encourages you to go through the comments in this review then schedule a meeting with the Division to clarify any comments that are unclear. You may also contact the individual reviewer directly: Leslie Heppler (lah, 801-538-5257), Lynn Kunzler (lk, 801-538-5310), Wayne Western (whw, 801-538-5263), April Abate (aa, 801-538-5214), or me (pbb, 801-538-5261).

The comments in this review are organized according to the sequence of Minerals Rules and the organization in the Notice. The Division appreciates receiving a complete copy of the Notice as a response to its comments. We suggest that you accept the changes in the most recent submittal then make further changes in response to this review using redline/strikeout. Upon final approval of the Notice, the Division will ask that you supply two copies of the Notice. Both copies will be stamped approved, and one will be returned for your records.

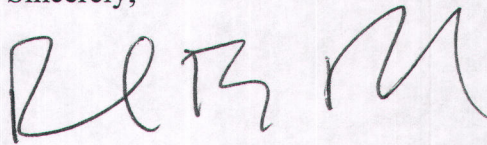


Page 2 of 9
Wayne McCandless
M/049/0093
June 4, 2015

Thank you for providing a cultural resources survey report. The Division has recommended that the project will not have any effects on significant resources and is awaiting concurrence from the State Historic Preservation Officer (SHPO).

The Division will suspend further review of the Notice until receiving your response to this letter. Please contact the lead inspector, April Abate, at 801-538-5214 or me at 801-538-5261 if you would like to schedule a meeting or if you have general questions about the review. Thank you for your cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. B. Baker', written in a cursive style.

Paul B. Baker
Minerals Program Manager

PBB: aa: eb

Attachment: Review, bond calculations, seed mix recommendation

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**INITIAL REVIEW OF NOTICE OF INTENTION
TO COMMENCE LARGE MINING OPERATIONS**

Nielson Construction
Emma Park Limestone Pit
M/49/0093

June 3, 2015

General Comments:

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
1	General comment	<p>The Division previously wrote on August 25, 2014 – “<i>Many comments listed below (lah) are related to the cross sections included behind the tab “Exhibit 5.” Cross sections need to be dimensioned to reinforce written text. Comments written below note the different inconsistencies and sheet/page notations indicate the locations of inconsistencies.</i>”</p> <p>Please provide a map to show the location of the cross sections provided.</p>	<p>lah</p> <p>lah</p>	

R647-4-104 – Operator Information and Surface and Mineral Ownership

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
2	Page 2 & Exhibit 1	<p>Information about ownership of adjacent lands appears to be inconsistent between page 2 of the text and Exhibit 1. The text says the James T. Jensen estate owns surface rights and SITLA owns mineral rights in the area north and west of the pit (as well as the pit areas). According to Exhibit 1, the BLM, not SITLA, has mineral rights north and west of the pit. Please make the appropriate changes or delete this information altogether. Information about ownership of adjacent lands is not required by rule but should be correct if included in the Notice.</p> <p>In addition, it appears the pit extends on to lands where the BLM owns the mineral rights. Rule R647-4-104.2 requires inclusion of the surface and mineral owners of land to be affected by the operations.</p>	pbb	

		Please show in the text that the BLM is a mineral owner within the area affected by the mine.		
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R647-4-105 - Maps, Drawings & Photographs

General Map Comments

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
3	Page 4 Exhibit 3	The Division previously wrote on August 25, 2014 – <i>“Under item (e) at the bottom of the page, the plan indicates areas to be reclaimed through the life of the operation are shown on Exhibit 3, but no reclamation is shown on Exhibit 3. Please be consistent and either add reclamation to Exhibit 3 or change the text.”</i>	lah	
	Page 3 & Exhibit 3	Please change text in paragraph 3 (e) to Exhibit 5, which references the reclamation plan. Not Exhibit 4.	lah	
4	Exhibit 2	The Division previously wrote on August 25, 2014 – <i>“The plan view schematic exhibit needs more detail to show how impacts to surface water will be controlled. Specifically, add details on the stream crossing (culvert size, riprap details etc), the rock lined overflow and dimensions of the berm (dimensions, material gradation) (typo - burm). Silt fences are typically long term maintenance problems; the Division suggests using stone check dams properly sized and properly placed for roadside ditches.”</i> This question has not been fully addressed. The culvert size is shown as well as berm and overflow dimensions and material gradation, but the typographical error is still in Exhibits 2, 3, and 4. Exhibits 4C thru 4G show ditches around the exterior of the pit with stone check dams near the entrance. Stone check dams should also be placed at the proper frequency along the length of the diversion ditches, probably near or in steep segments of the ditches, to slow the flow and drop out sediment.	lah lah	

105.3 - Drawings or Cross Sections (slopes, roads, pads, etc.)

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
5	Text page 3 Exhibit 1	The Division previously wrote on August 25, 2014 – <i>“Page 4 under 105.1 (b) contains a long list of features, but none of the features are listed on the legend in the exhibit. If a feature does not exist, note in the text that the feature does not exist. As the maps and text were submitted, the lack of proper documentation is an omission. The maps and text need to be consistent.”</i> This question has not been properly addressed. Rather than delete the structure or item in the text, please simply include a statement in the text,	lah lah	

		such as, "There are no landing strips, water wells, etc, in the permit boundary or affected by the mining permit."		
6	Text page 5 Exhibit 3 and 4	The Division previously wrote on August 25, 2014 – <i>"On page 5 under 105.2 (a) and (b) is a long list of features, but none of the features are listed on the legend of the exhibit. If a feature does not exist, note in the text that the feature does not exist. As currently shown and written the lack of proper documentation is an omission. The maps and text need to be consistent."</i>	lah	
	Text page 4	Like the previous comment, rather than delete the structure or item in the text, please simply include a statement in the text, such as, "There are no landing strips, water wells, etc, in the permit boundary or affected by the mining permit."	lah	
7	Text page 5 and 6 Exhibit 5	The Division previously wrote on August 25, 2014 – <i>"On page 5 and 6 under 105.3 (a), (b), (c), and (d) is a list of features, but the features are not listed on the legend of the exhibit. If a feature does not exist, note in the text that the feature does not exist. As currently shown and written the lack of proper documentation is an omission. The maps and text need to be consistent."</i>	lah	
	Text page 4	This question has not been properly addressed. Rather than delete the item, please simply include a statement in the text, such as, "There are no waste dumps, tailings [etc.] in the permit boundary or are affected by the mine."	lah	
8	Exhibit 4A	Slope labels need to include horizontal and vertical designations. As shown "3:1", should be replaced with "3H:1V". This comment applies throughout the plan.	lah	
9	Exhibit 4A and other figures	Stone check dams and all other erosion control features shown on all maps need to be placed as needed according to best management practices (BMPs). Exhibits 4C through 4G show the locations of stone check dams, but as discussed in comment 4 above, placement in some of the steeper sections of the ditch may be more beneficial. Please include criteria for placement of BMPs.	lah	

R647-4-106 - Operation Plan

106.2 - Type of operations conducted, mining method, processing etc.

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
10	Pages 5-6	The Division previously wrote on August 25, 2014 – <i>"More detail is needed about the mining operations. Include a list of crushing and hauling equipment to be used. The Division needs this information to verify surety calculations."</i>	lah	
		For the purpose of making surety calculations, please include the number of each type of equipment that will be on site. Page 6 includes a list of equipment, but it is not clear whether this list is complete.	lah	
11	Pages 5-6	The Division previously wrote on August 25, 2014 – <i>"More detail is needed on blasting, particularly regarding public safety and proximity to the railroad, the</i>	lah	

		US Highway and associated landslide structures and power lines.” If there will be no blasting, please make a statement to this effect in the text.	lah	
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106.3 - Estimated acreages disturbed, reclaimed, annually

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
12	Pages 6-7	The Division previously wrote on August 25, 2014 – “Please provide a more clear estimate as to when concurrent reclamation will begin; “15 - 20 acres” is a wide spread on a 32-acre site.”	lah	
	Page 6	Please clarify what areas are to be included in the Phase 1 and Phase 2 concurrent reclamation areas. The plan states that the first section is 12 acres, the second section is 20 acres. Where are these acres located in terms of years 1 through 4?	aa	
		Exhibits 2, 4, and 4C through 4G show the mining sequence starting on the north side of the mining area and progressing south. This appears to be inconsistent with Exhibit 5 which, on the east side of the area, indicates with an arrow that reclamation would commence on the south side of the east area and proceed north—the opposite of the mining sequence. Please resolve this apparent discrepancy or provide an explanation.	pbb	

106.5 - Existing soil types, location, amount

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
13	Page 7	Changes made to depth of soil material to be salvaged and total volume to be salvaged are not supported by data. These figures need to be changed back to the original 6-inch depth to be salvaged and 26,000 cubic yards volume for salvage and stockpiling.	lk	

106.6 - Plan for protecting & re-depositing soils

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
14	Page 7	From the August 25, 2014, review: “The operator has committed to salvage 26,000 yds ³ of topsoil, which is an average of six inches over the entire site. Please include a commitment to salvage “suitable soil material” (R647-4-106.5), including greater depths of soil if it is available.”	lk	
	Page 7	This comment was not addressed. Please include a commitment to salvage all available topsoil is needed	lk	
	Page 7	This section has been changed from 6 inches of soil to be salvaged and stockpiled, to only 3 inches (with no supporting data) This needs to be changed	lk	

		back to the original 6 inches. Also, this section identifies 19,000 cubic yards of soil to be stockpiled, which does not correlate with either the original volume discussed in section 106.5, or the amount that would be salvaged if only 3 inches were salvaged. This amount needs to correlate with 106.5, and should be 26,000 cubic yards.		
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R647-4-109 - Impact Assessment

109.1 - Impacts to surface & groundwater systems

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
15	page 11	The Division previously wrote on August 25, 2014 – <i>“The text notes that the quarry floor will be at an elevation of 7200 feet, but this is not consistent with the elevations shown on the topographic map and at least five feet of product and overburden. As noted above, please provide cross sections to delineate the pit bottom, and modify the text as needed to be consistent throughout the document.”</i> Text still needs to be modified to match the cross sections. Include a statement such as, “The quarry floor ranges in elevation from 7340 to 7200 feet and the groundwater elevation is estimated to be about 7020 feet.”	lah lah	

109.3 - Impacts on existing soils resources

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
16	Page 13 (109.3)	This section should reference sections 106.5 and 106.6 for the volume of soil materials to be salvaged and stockpiled for reclamation.	lk	

R647-4-110 - Reclamation Plan

110.2 - Roads, highwalls, slopes, drainages, pits, etc., reclaimed

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
17	Section 106.2 Section 110.2	In Section 106.2 the plan says hoe rams will be used to break up the limestone seam. The plan says in Section 110.2 that all highwall slopes will be left at 3H:1V or less and that there will be no backfilling in the quarry except for replacement of topsoil. The reclamation cost estimate does not mention use of a hoe ram to reclaim the highwalls. Please state in the reclamation plan how highwalls will be reclaimed and include those costs in the reclamation cost estimate. Please include costs in the surety calculation for reducing the slopes to 3H:1V.	whw	
18	page 15	The Division previously wrote on August 25, 2014 – <i>“Paragraph 4 notes the “pit area returned to sheet flow.” Please rewrite to state that berms and ditches will be reclaimed only after vegetation is established and all erosional issues have remediated.”</i>	lah	

		This comment was not addressed. Please describe how sediment and erosion will be controlled until vegetation is established. This may be through continued maintenance of runoff control structures until vegetation is established, or it could include surface roughening adequate to trap runoff and keep sediment from leaving the site. Other options may also be available.	pbb	
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110.5 - Revegetation planting program

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
19	Page 16	The proposed seed mix is lacking in forbs and shrubs, and the Division recommends the attached seed mix to meet the goals of a sustainable permanent vegetation cover, as well as provide for the post mining land use of grazing and wildlife habitat (with emphasis on sage grouse habitat). Please acknowledge that this mix is acceptable by including it in the reclamation plan, or provide another mix that would meet these goals.	lk	

R647-4-113 – Surety

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
20	Reclamation Tab	Enclosed with this review is a copy of the Division's reclamation cost estimate using Blue Book rates. There is a large discrepancy between the cost estimate provided and the estimate prepared by the Division. The Division has to bond for worst-case scenario and uses Blue Book rates as opposed to the costs for the operator to do the reclamation work himself. Please refer to the attached documents, review the Division's cost estimate, and make revisions as needed. Please contact the Division with questions about this issue.	whw and pbb	

Recommended Revegetation Species List
for

Nielson Construction
Emma Park Limestone Pit
S/049/093

Prepared by DOGM August 2014

Common Name	Species Name	*Rate lbs/ac (PLS)
Intermediate wheatgrass	<u>Agropyron intermedium</u>	1.5
Bluebunch wheatgrass	<u>Agropyron spicatum</u>	1.5
Sheep fescue	<u>Festuca ovina</u>	0.5
Sandberg bluegrass	<u>Poa sandbergii</u>	0.5
Indian ricegrass	<u>Oryzopsis hymenoides</u>	1.5
Pacific aster	<u>Aster chilensis</u>	0.1
Lewis flax	<u>Linum lewisii</u>	1.0
Cicer milkvetch	<u>Astragalus cicer</u>	1.5
Yellow sweetclover	<u>Melilotus officinalis</u>	0.25
Small burnet	<u>Sanguisorba minor</u>	1.0
Palmer penstemon	<u>Penstemon palmeri</u>	0.5
Western yarrow	<u>Achillea millefolium</u>	0.1
Mountain big sagebrush	<u>Artemisia tridentata vaseyana</u>	0.15
Forage Kochia	<u>Kochia prostrata</u>	0.5
Serviceberry	<u>Amelanchier alnifolia</u>	1.0
Blue elderberry	<u>Sambucus caerulea</u>	1.0
Total		13.1 lbs/ac

***recommended broadcast seeding rate.**